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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,185	05/15/2001	Shawn M. Cousineau	TMP-0013CP2	9318

7590 10/16/2003
Steven M. Mills
Mills & Onello LLP
Suite 605
Eleven Beacon Street
Boston, MA 02108

EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,185

Applicant(s)

Cousineau et al. *M*

Examiner

FORD

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☒ The oath or declaration is objected to by the Examiner (*see office action*).

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6, 7.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Please update the status of the two applications discussed on page 1, lines 4-7 of the specification with patent numbers or abandoned status, as appropriate. Please do the same for the application listed on page 5, line 20.

The drawings are objected to because no "air exhaust valve" mentioned on page 19, lines 25 is shown in any drawing. Show it and give it a reference numeral not already in use. A new copy of Figure 6 clearly ~~legending all of the~~ ^{be} all of the solenoid valves sv1-sv8 is required. The legends are currently so small and blurred that it is impossible to read them. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

There are no common inventors between the current application and SN 09/001,887 therefore it cannot be designated a CIP. See 35 U.S.C. 120. Please execute a new declaration and eliminate the CIP designation for SN 09/001,887.

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The prior art submitted September 9, 2002 (and to a lesser extent that submitted May 6, 2002) is extremely relevant. If there are search reports and/or examination reports from foreign or domestic patent offices, which accompanied this prior art the Examiner is requiring their production in response to this office action.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/74117 or Cowans (US 6,102,113), WO '117 on page 6, line 24- page 7, line 19, incorporated here by reference, describes the purge system / process which anticipates these claims.

Similarly, Cowans in Figure 6 and in the description thereof, incorporated here by reference, describes a purge system / process which anticipates the claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,3,10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1 and 9 above, and further in view of Sherwood (USP 6,148,634).

HFE and methoxy-non fluorobutane (HFE-7100 TM) are disclosed as non-toxic non-ozone depleting coolants in intermediate refrigeration loops. To have used either one of these coolants in the intermediate coolant loop of WO'117 or Cowans to avoid toxic or ozone-depleting consequences in the event of accidental discharge would have been obvious to one of ordinary skill.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1 and 9 above, and further in view of JP 2000-183,142.

Both WO'117 and Cowans suggest nitrogen as a purge gas in exemplary fashion. Air (composed of 78 percent nitrogen) is used as a purge gas in JP'142. To have substituted air as a purge gas in either of WO'117 or Cowans to further reduce costs would have been obvious since no gas separation is required in making compressed air.

Claims 5-8 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1 and 9 above, and further in view of Fraser (USP 5,015,337) and Anderson (H1145).

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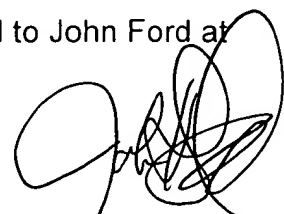
Fraser in Figure²_A and the description thereof, incorporated here by reference, teaches the desirability of recovering vaporized coolant from a semiconductor processing system having a main heating / cooling system 54. This is done using a condenser 68, having a gas separator discharge 74 and a return conduit (from a second stage separator 70) 80 to return "expensive and recovered liquid medium" coolant back to the system.

Similarly Anderson in col. 8, lines 20-30, also teaches the need to recover "expensive" coolants from semiconductor processing systems using a recovery condenser and recycling system.

To have used a recovery condenser and recycling system for residual coolant in the purge gas ~~streams~~^{streams} of the prior art for the purpose of recovering relatively expensive coolant such as HFE types or others would have been obvious. A gallon of HFE is expensive, costing roughly \$220.00 as evidenced by the Tech TV prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to John Ford at telephone number 703-308-2636.



John K. Ford
Primary Examiner